

LARRY SEVENKER

Consulting Engineer

**4148 LOIRE DR.
KENNER, LA. 70065**

(504) 468-1909

September 18, 1989

Mr. Joe Pinkham
Cargill, Inc.
518 East Fourth Street
Watkins Glen, NY 14891

RE: Mechanical Integrity Testing & UIC Permit Modification

Dear Joe:

A Mechanical Integrity Tests was conducted on the 13-14-16 well gallery at the Watkins Glen plant September 12, 1989 and the wells and gallery held the pressure test for three hours. Testing was conducted during the plant boilout to allow for a time period when the cavities can remain stable.

Gallery wells 13-14-16 were pressurized with the plant injection pump before the rental pump was operated to raise the system to the testing pressure. Water was injected into well 14 while the valves were closed on the brine production well 13. The system was pressured to 405 psi with the rental pump operating at well 16. The wells were all closed in and allowed to stabilize before starting the test. At 12:30 p.m. September 12, 1989, well 16 was holding a constant water pressure on the cavity of 405 psi. A constant pressure of 405 psi was held for 3 hours with 0 psi pressure loss. The dead weight tester and pressure chart recorder were placed on well 16. All wells of the gallery would be pressurized by injecting water in wells 14 and 16, which were the injection wells for the gallery.

The 13-14-16 well gallery is rather large and requires a long time to raise the gallery pressure to 405 psi. Due to the cavity size and the need to maintain the total brine supply to the plant, the pumps were turned off to start the cavity test at a 405 psi test pressure. Had more time been available to continue pumping, the 13-14-16 cavity would have tested at a higher pressure as indicated by the zero pressure change within the 3 hour test. The 15-17 well gallery passed an earlier test at 434 psi. All the wells and cavities in both the galleries have passed the mechanical integrity tests. I would suggest that the maximum operation pressure for both galleries be raised to 420 psi for the UIC permit. This is only slightly higher than the dead head pressure conditions for the plant injection pumps. There is some difference between the pump pressure and the wellhead pressure due to friction losses.

If you have any questions or comments, please contact me.

Sincerely,


Larry Sevenker
Consulting Engineer

Attachments

cc Steve Ketchum

MECHANICAL INTEGRITY TEST
PRESSURE TEST

September 18, 1989

Company: Cargill, Inc.
Address: 518 East Fourth Street
Watkins Glen, NY 14891

Contact: Mr. Joe Pinkham / Mr. Steve Ketchum
Phone: (607) 535-2411

Test Conducted By: Larry Sevenker

Test Date: September 12, 1989

Test Location: Well 16

Type Test: Cavity Hydro Test

Gallery Wells Tested: #13, #14, & #16

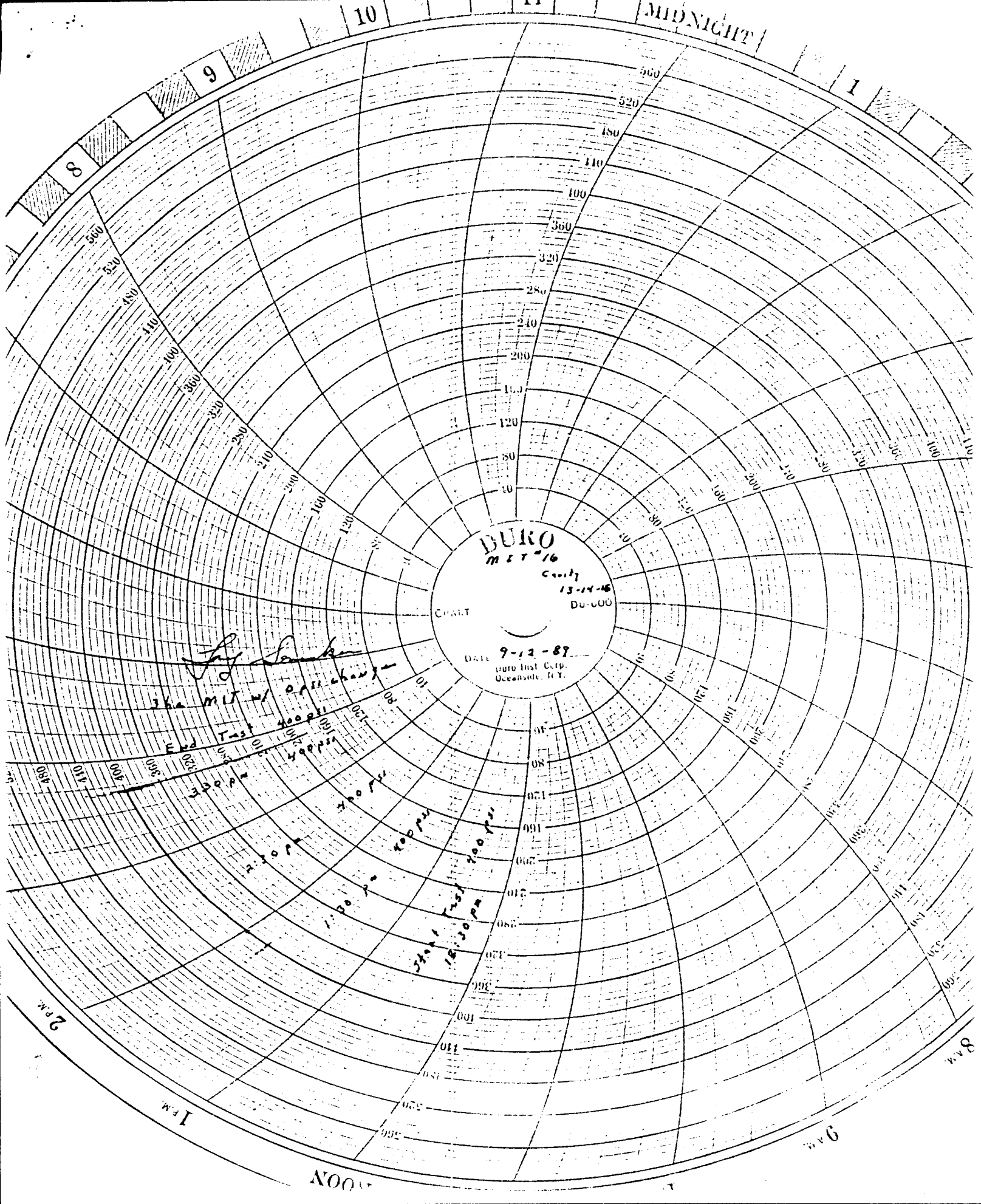
Fluid In Well: #13 - Brine, #14 - Water, & #16 - Water

Time	Dead Wt Tester @ 16 psi	Pressure Recordings		Remarks	
		Pressure Gauge @ 16 psi	Pressure Recorder @ 16 psi		
12:30 P.M.	400	405	400	Start Test	
12:45 P.M.	400	405	400		
1:00 P.M.	400	405	400		
1:15 P.M.	400	405	400		
1:30 P.M.	400	405	400		
1:45 P.M.	400	405	400		
2:00 P.M.	400	405	400		
2:15 P.M.	400	405	400		
2:30 P.M.	400	405	400		
2:45 P.M.	400	405	400		
3:00 P.M.	400	405	400		
3:15 P.M.	400	405	400		
3:30 P.M.	400	405	400		Complete Test
Change	0 psi	0 psi	0 psi		

Test Results: Well #13, #14, & #16 were tested with a dead weight water pressure of 400 psi for 3 hours with a 0 psi change during the test. (Chart @ #16 was 400 psi & gauge @ #16 was 405 psi during the test.) Cavity and wells 13-14-16 held a very successful pressure test for 3 hours without any pressure change.

Pressure Test Report


Larry Sevenker
Consulting Engineer
Date: 9-18-89



MECHANICAL INTEGRITY TEST
PRESSURE TEST

June 20, 1989


Company: Cargill, Inc.
Address: 518 East Fourth Street
Watkins Glen, NY 14891

Contact: Mr. Joe Pinkham / Mr. Steve Ketchum
Phone: (607) 535-2411
Test Conducted By: Larry Sevenker
Test Date: June 10, 1989
Test Location: Well 15
Type Test: Cavity Hydro Test
Gallery Wells Tested: #15 & #17
Fluid In Well: #17 - Brine, #15 - Water

Time	Dead Wt Tester psi	Pressure Recordings		Remarks
		Pressure Gauge psi	Pressure Recorder psi	
12:00 A.M.	430	435	430	Start Test
9:00 A.M.	430	435	430	Complete Test
Change	0 psi	0 psi	0 psi	

Test Results: Well #15 was tested with a dead weight water pressure of 430 psi for 9 hours with a 0 psi change during the test.

Pressure Test Report


Larry Sevenker
Consulting Engineer
Date: 6-20-89

MIDNIGHT



GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK

LOCATION

NUMBER

15-16

6-10

1989

TA OP3222

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US ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF DRINKING WATER
WASHINGTON, DC 20460
UIC ANNUAL FEDERAL REPORTING SYSTEM
**PART III: MECHANICAL INTEGRITY OF
EXISTING INJECTION WELLS**
(This information is collected under the
authority of the Safe Drinking Water Act)

I. DATE PREPARED
(Mo, day, year)

09/18/89

II. STATE

NY

III. REGION

IV. REPORTING AGENCY

Cargill, Incorporated

V. REPORTING PERIOD (Mo, year)

FROM 6-89

TO 6-90

ITEM				CLASS AND TYPE OF INJECTION WELLS						
				I	II			III		
					SWD 2D	ER 2R	HC 2H			
VI. NUMBER OF EXISTING WELLS TESTED FOR MECHANICAL INTEGRITY				Deficiency				0		
				Total				3		
VII. MECHANICAL INTEGRITY TESTING	(1) TEST OF SIGNI- FICANT LEAK	A. Annulus Pressure Monitoring		Deficiency				NA		
				Total				NA		
		B. Casing/Tubing Pressure Test		Deficiency				0		
				Total				3		
		C. Monitoring Records Reviewed		Deficiency				0		
				Total				3		
	D. Other Tests (Specify) well & cavity		Deficiency				0			
			Total				3			
	E. Number of Wells Witnessed for Mechanical Integrity						0			
	(2) TEST OF FLUID MOVE- MENT	Field Tests	F. Cementing Record Reviews		Deficiency				0	
					Total				0	
			Field Tests	G. Temperature Log		Deficiency				0
						Total				0
				H. Noise Log		Deficiency				0
				Total				0		
I. Radioactive Tracer Log				Deficiency				0		
				Total				0		
J. Cement Bond Log				Deficiency				0		
				Total				0		
K. Other Tests (Specify)		Deficiency				0				
		Total				0				
L. Number of Wells Witnessed for Mechanical Integrity						0				
VIII. REMEDIAL ACTION	A. Casing Repaired/Squeeze Cement						0			
	B. Tubing/Packer Repaired						0			
	C. Plugging/Abandonment		1				0			
	D. Other Remedial Actions						0			
	E. Number of Wells Receiving Remedial Action						0			

IX. REMARKS (Attach additional sheets if necessary)

Three wells in one gallery (13-14-16) were pressure tested and held for +3 hours.